

Cybersecurity Awareness Essentials

Gary Sheehan
Director – Information Security
April 2023



**95% of cybersecurity breaches are attributed to
human error – Allied World 2023**

Elon's Information Security Program



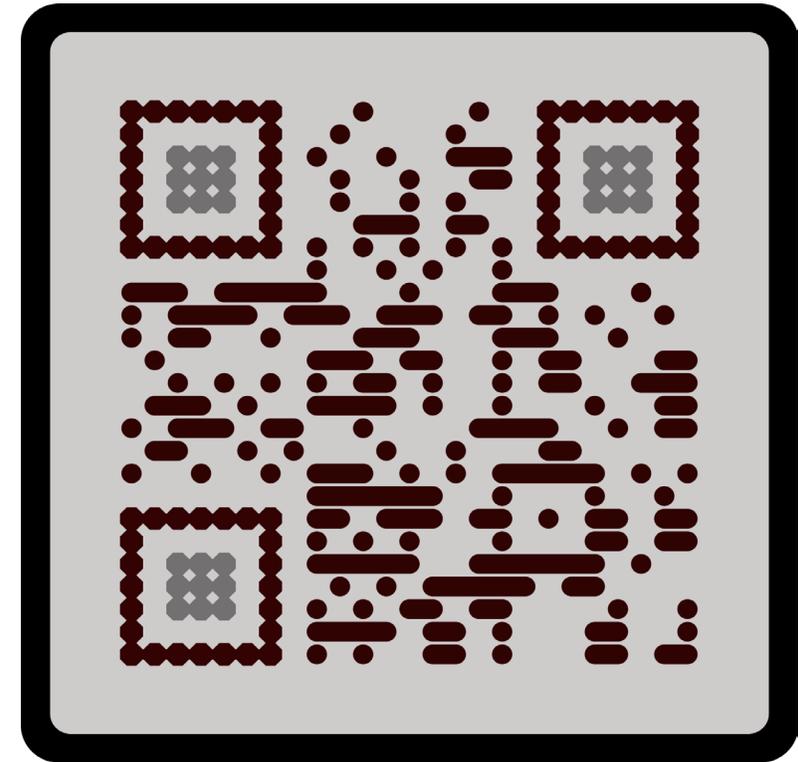
Today's Agenda:



- 3 Biggest Risks
- Elon's Role in Security
- Essential Tips
- Q & A



Common Attack Method - QR Codes



Common Attack Method - QR Codes

QR CODE: *IN ANY SHAPE!*





Common Attack Method - QR Codes

The four biggest risk to QR codes are:

- They are very easy to create and connect to a website
- Mobile devices can be vulnerable
- You really have no idea where they will direct you – so the author needs to be verified and trusted.
- Sites that are accessed by QR codes tend to become targets

Common Attack Method - QR Codes

The 9 Biggest QR Code Scams

- QR codes on parking meters and other contactless payment devices
- QR codes sent in phishing emails
- Tampered QR codes in restaurants
- QR codes on unexpected package deliveries
- QR codes at COVID-19 testing centers
- QR codes in shopping malls and store windows supporting charities
- QR codes sent over social media (hacked accounts)
- Cryptocurrency QR code scams
- QR code scanner apps that download malware



Common Attack Method - Email Phishing Attack

Hackers extorted \$1.14m From University of California
BBC News 2021

Phishing Attacks Doubled in 2022 to Over 500 Million.

Universities and Colleges Cope Silently With Ransomware Attacks

Ransomware gangs like Vice Society target colleges and universities, but they try hard to keep that information quiet.

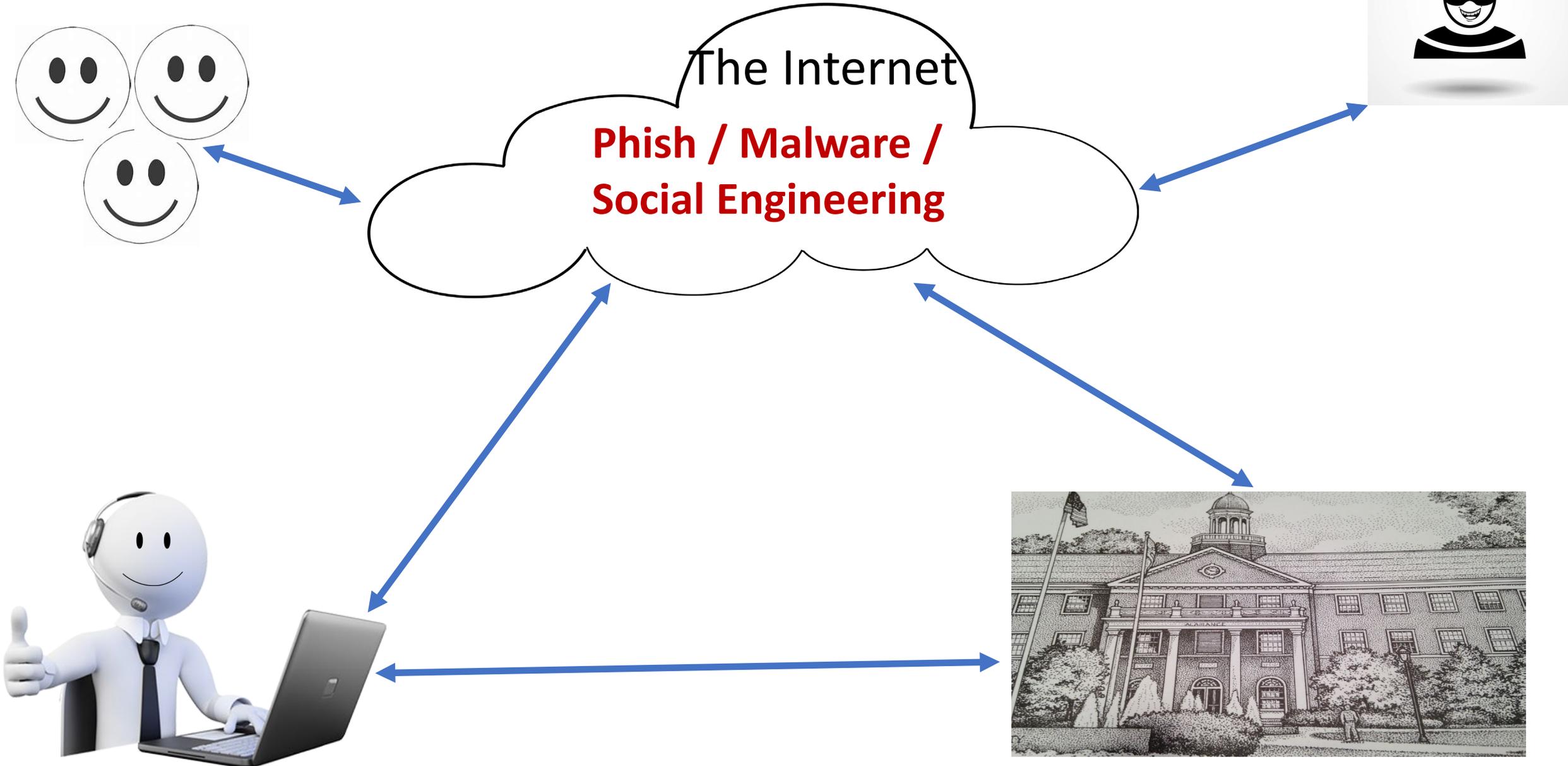
- CSO Magazine 2023

Colleges and Universities
With Targeted and Sophisticated
Attacks - Expert Insights 2022

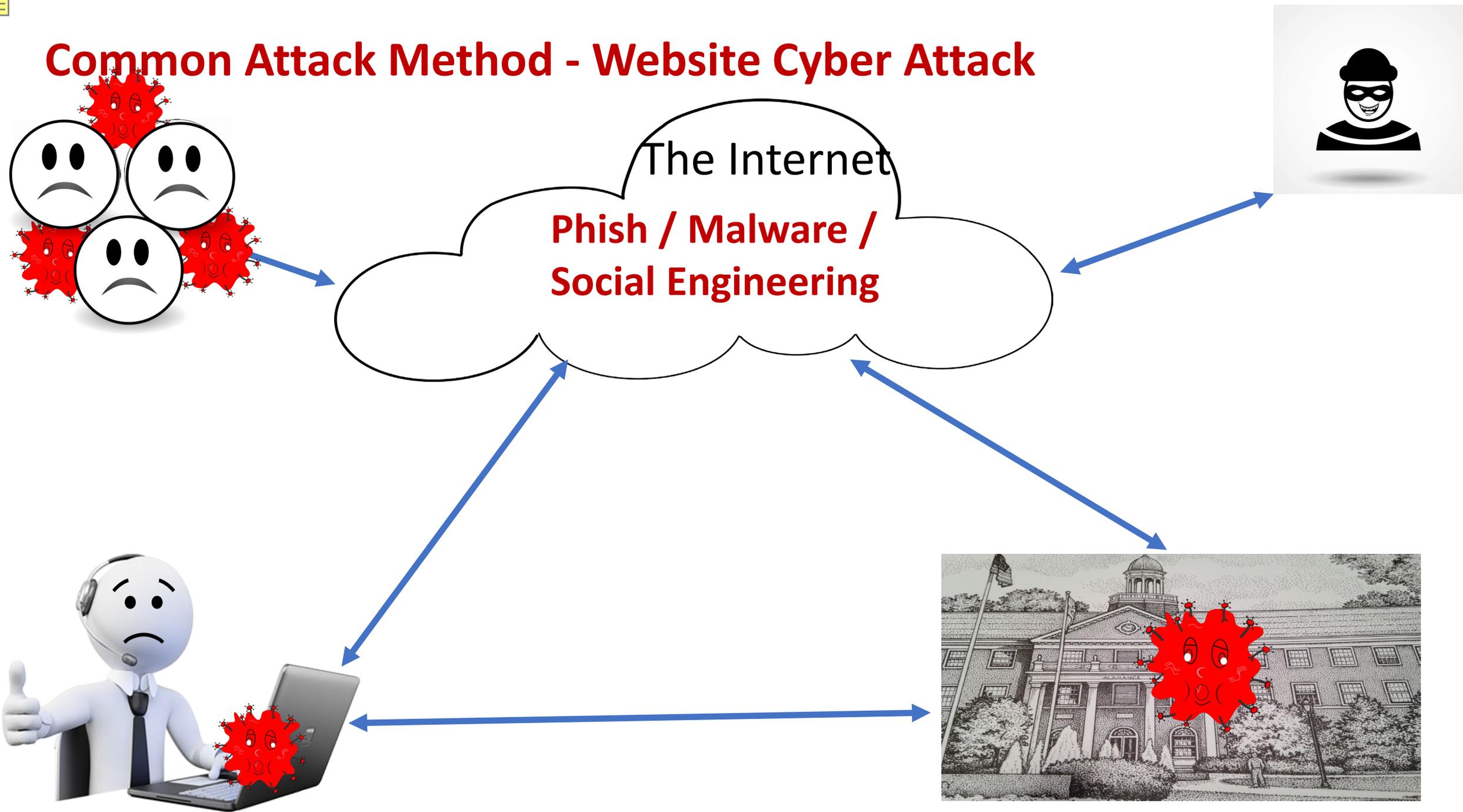
Kaspersky Labs 2022

The Increasing Threat of Ransomware in Higher Education - Educause Review 2022

Common Attack Method - Website Cyber Attack



Common Attack Method - Website Cyber Attack





RANSOMWARE ATTACK

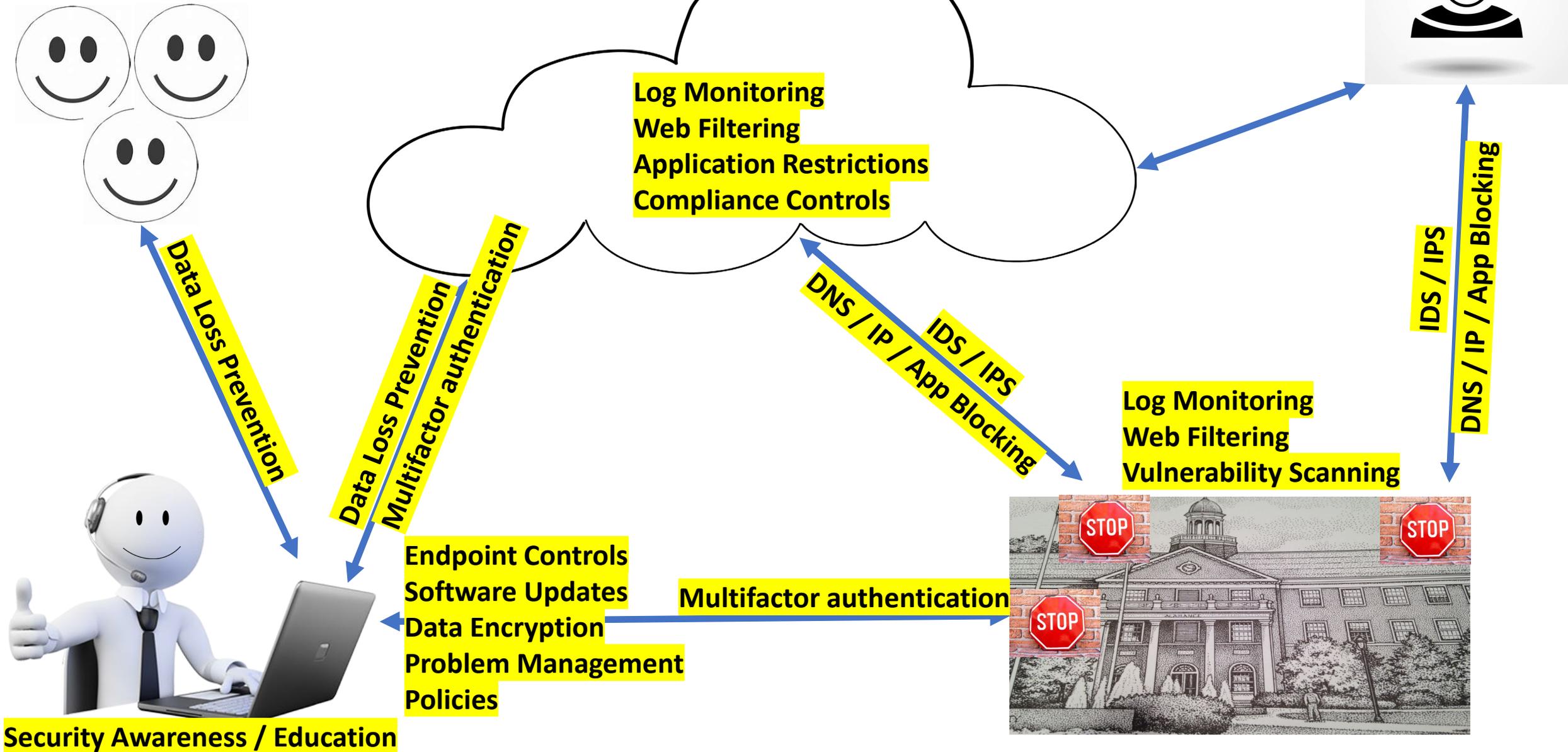
Your personal files are encrypted

You have 5 days to submit the payment!!!

To retrieve the Private key you need to pay

Your files will be lost

Elon Safety Measures





Protecting Yourself and Our Community



Tips For Ensuring Privacy & Security

#1 – Be Aware of Cyber Issues & Exploits

Stay Informed.

Elon's Security Awareness Program includes:

- An Information Security Alert System
- A video library (Moodle)
- New employee orientation information
- Periodic training events throughout the year
- Easy ticket submission (infosec@elon.edu)
- Awareness resources available

The screenshot shows the Elon University Information Security website. At the top, the Elon University logo is on the left, and navigation links for Students, Faculty & Staff, Parents, Resources, Search, GIVE, and APPLY are on the right. Below the logo, a secondary navigation bar includes Admissions, Academics, Campus Life, Global, Athletics, Alumni, and About. The main content area has a breadcrumb trail: Home > Finance & Administration > Information Technology > Information Security. The title 'Information Security' is displayed in a large font. A yellow banner below the title contains the text: 'New mandatory security awareness training for Elon employees. Click here to learn more about training opportunities.' The main visual is a large banner with a dark red background on the left that says 'New! Security Awareness Training Requirement'. The rest of the banner shows a person's hands using a laptop with a blue grid and padlock icons overlaid. Social media icons for Facebook, Twitter, and Instagram are present, along with the hashtag #ElonSecure. Below the banner is a navigation bar with five icons: Security Alerts (warning triangle), Remote Work Safety (laptop), Awareness Training (pencil), Terms & Definitions (list), and Resources (document, circled in blue). The main content area is titled 'About Information Security' and includes a sub-header 'INFORMATION SECURITY' and a brief description: 'The Office of Information Security is integral to the protection of data, campus technology resources'. At the bottom, there are browser tabs for 'Elon University...mhtml' and 'Elon University _l...html'.

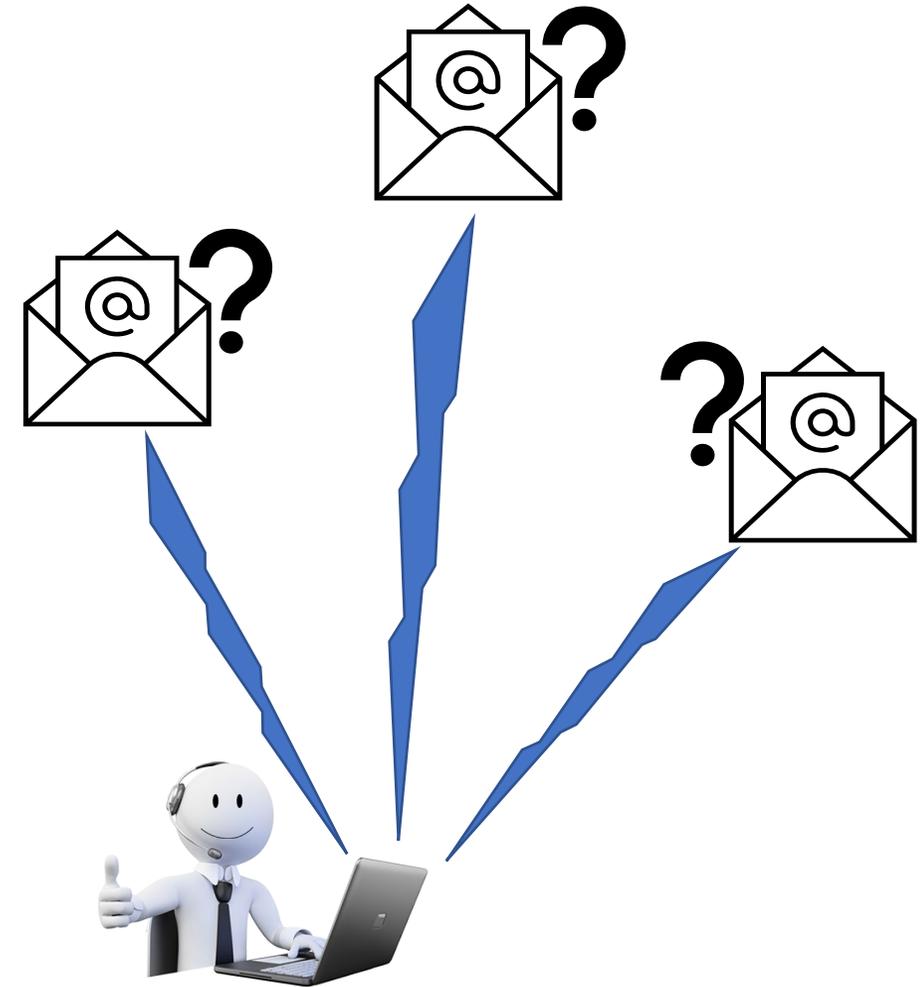


Tips For Ensuring Privacy & Security

#2 – Phishing / Spoofing / Scams

The 4S Method to Email Security

- **Sender**..... From **Name & Email** should match



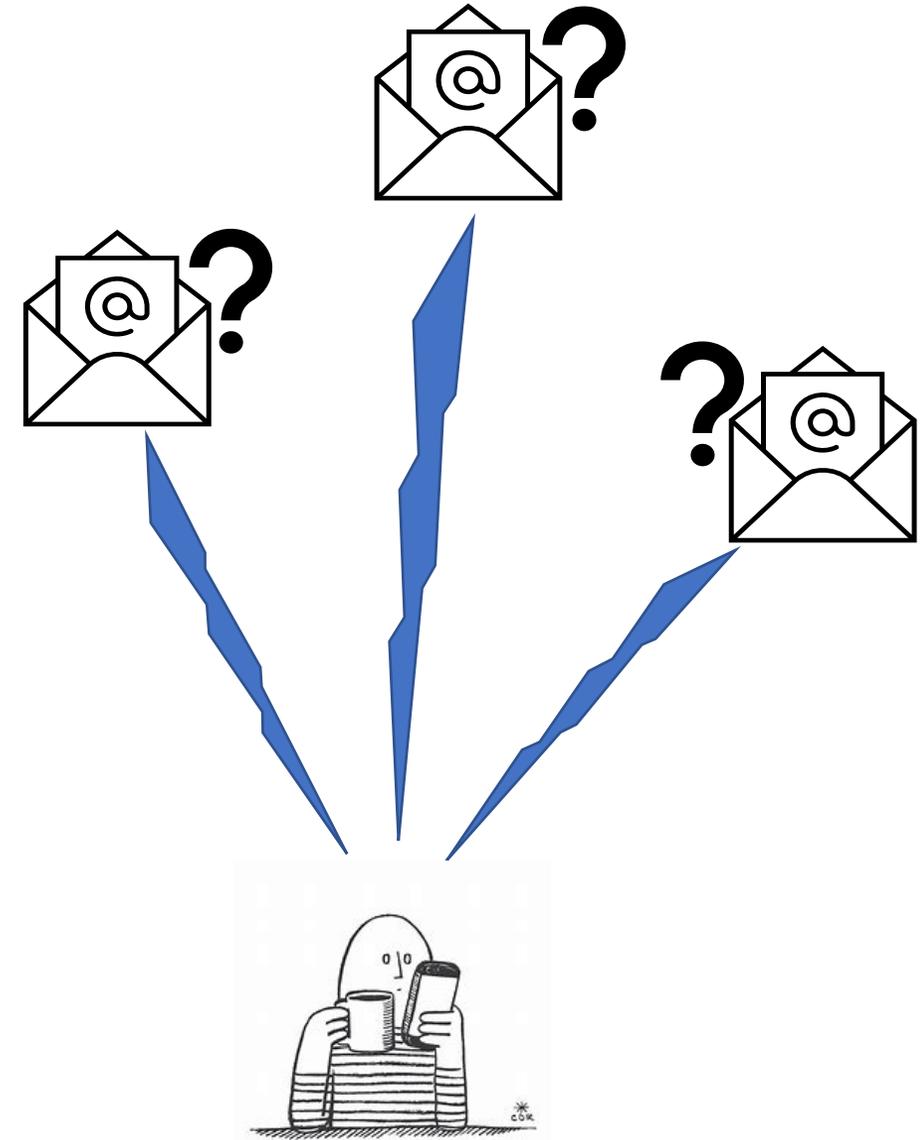


Tips For Ensuring Privacy & Security

#2 – Phishing / Spoofing / Scams

The 4S Method to Email Security

- **Sender**..... From **Name & Email** should match



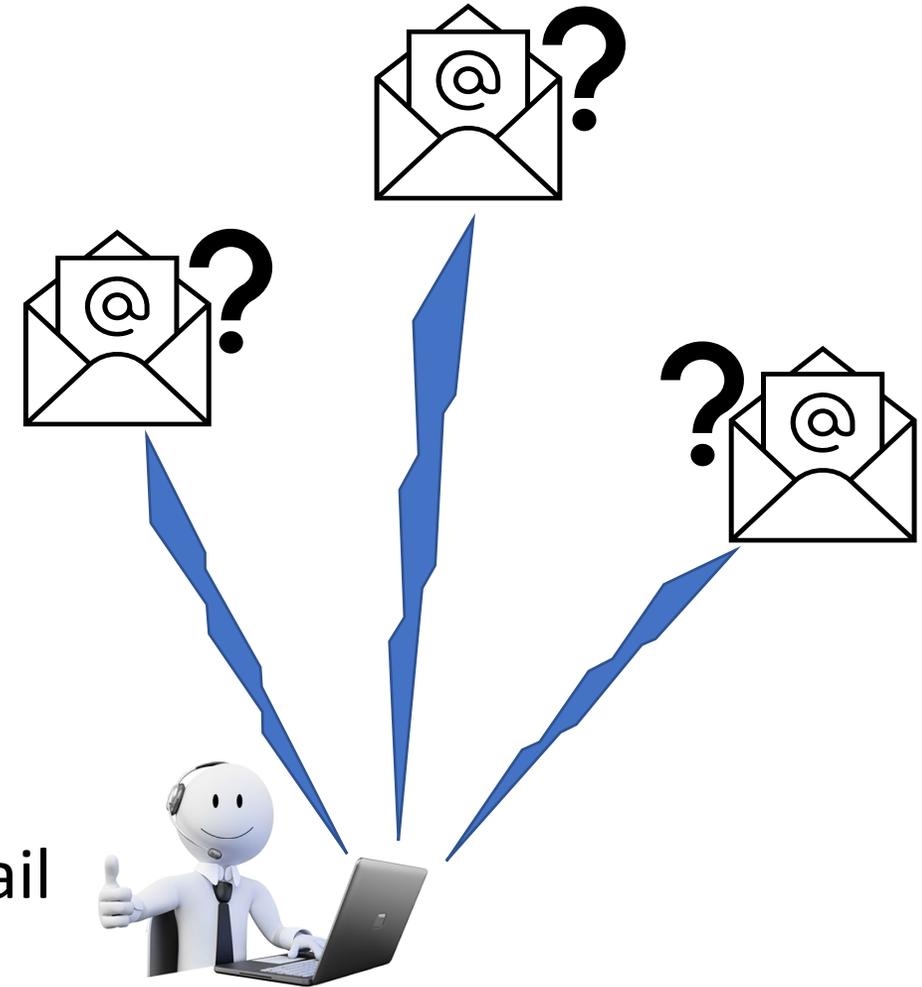


Tips For Ensuring Privacy & Security

#2 – Phishing / Spoofing / Scams

The 4S Method to Email Security

- **Sender**..... From **Name & Email** should match
- **Subject**..... Check tone and subject of the email



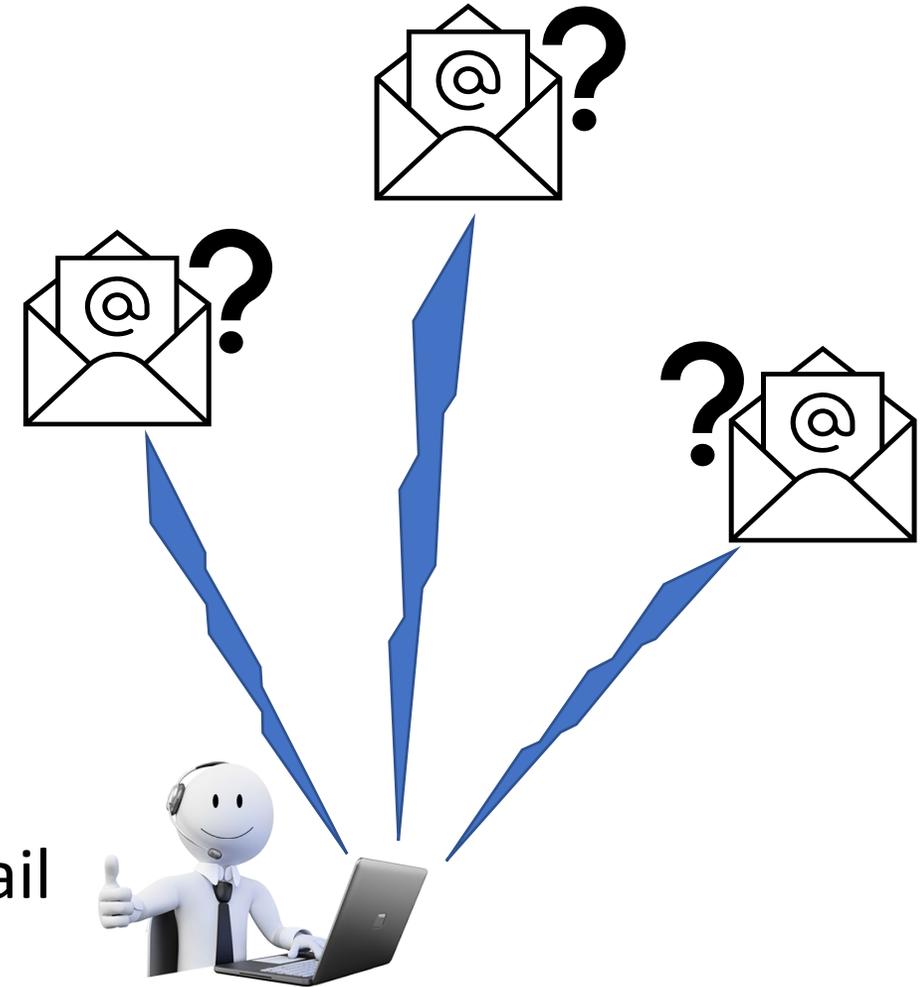


Tips For Ensuring Privacy & Security

#2 – Phishing / Spoofing / Scams

The 4S Method to Email Security

- **Sender**..... From **Name & Email** should match
- **Subject**..... Check tone and subject of the email
- **Salutation**.. Specific vs generic greetings





Tips For Ensuring Privacy & Security

#2 – Phishing / Spoofing / Scams

*Best Regards,
Gary Sheehan*

*Director - Information Security
Alamance Building 213C*

[Information Security Website](#)

The 4S Method to Email Security



**Focused on Student Success &
Engagement**

- **Sender**..... From **Name & Email** should match
- **Subject**..... Check tone and subject of the email
- **Salutation**.. Specific vs generic greetings
- **Signature**....Formal & structured



Tips For Ensuring Privacy & Security

#2 – Phishing / Spoofing / Scams

From: Connie Ledoux Book <edup11069@gmail.com>

Date: Monday, February 6, 2023 at 9:23 AM

To: Gary Sheehan <gsheehan2@elon.edu>

Subject: <no subject>

[Security Notice: This message originated from outside of Elon's email system. Proceed with caution and contact infosec@elon.edu with any concerns.]

hello good day, let me know when you are available. there is something i need you to do. i am stuck in a seminar right now, kindly drop your cellphone number to send text message

Sincerely,

Connie Ledoux Book
President
Ellon University

Tips For Ensuring Privacy & Security

#2 – Phishing / Spoofing / Scams

From: Gary Sheehan <gshehen@fpcc.edu>

Sent: Monday, June 13, 2022 10:06 PM

To: Gary Sheehan <gsheehan2@elon.edu>

Subject: Gary Sheehan shared "ADMIN EVALUATION FILE" with you.

Gary Sheehan shared a file with you:

Dr. Connie Ledoux invites you to view a work-order file.

Dr. Connie Ledoux
President - Elon University
Powell Building, office 102,
2185 Campus Box
Elon; NC 27244



OPEN



This link will work for everyone.

Tips For Ensuring Privacy & Security

#2 – Phishing / Spoofing / Scams



Microsoft

Outlook® Mailbox Storage for Elon

📧 gsheehan2@elon.edu

Attn: gsheehan2 Your mailbox is almost full and running out of free space. Clear cache now for space to avoid errors in sending or receiving messages.

[Clear Cache & Free Up Space](#)

Sign-in is validated by elon.edu user database

Note: This is an important service notice sent on 10-11-2022 08:23:24 AM

This e-mail message is intended for: gsheehan2@elon.edu

© Microsoft 2022 · Elon Webmail · All rights reserved.

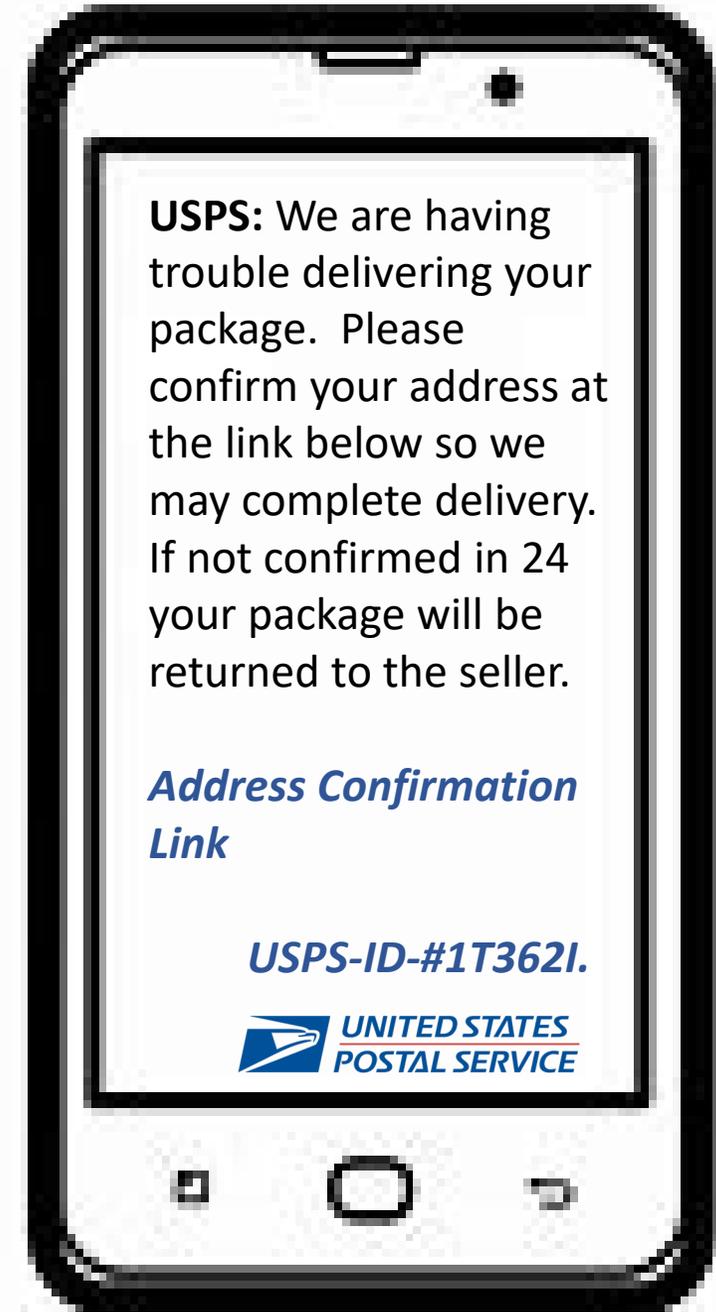
Disclaimer: This email and its content are intended solely for the use of the addressee.
Scanned and secured by Microsoft Office 365® Advanced Threat protection (APT)



Tips For Ensuring Privacy & Security

#2 – Phishing / Spoofing / Scams

Phishing is not just
for email anymore

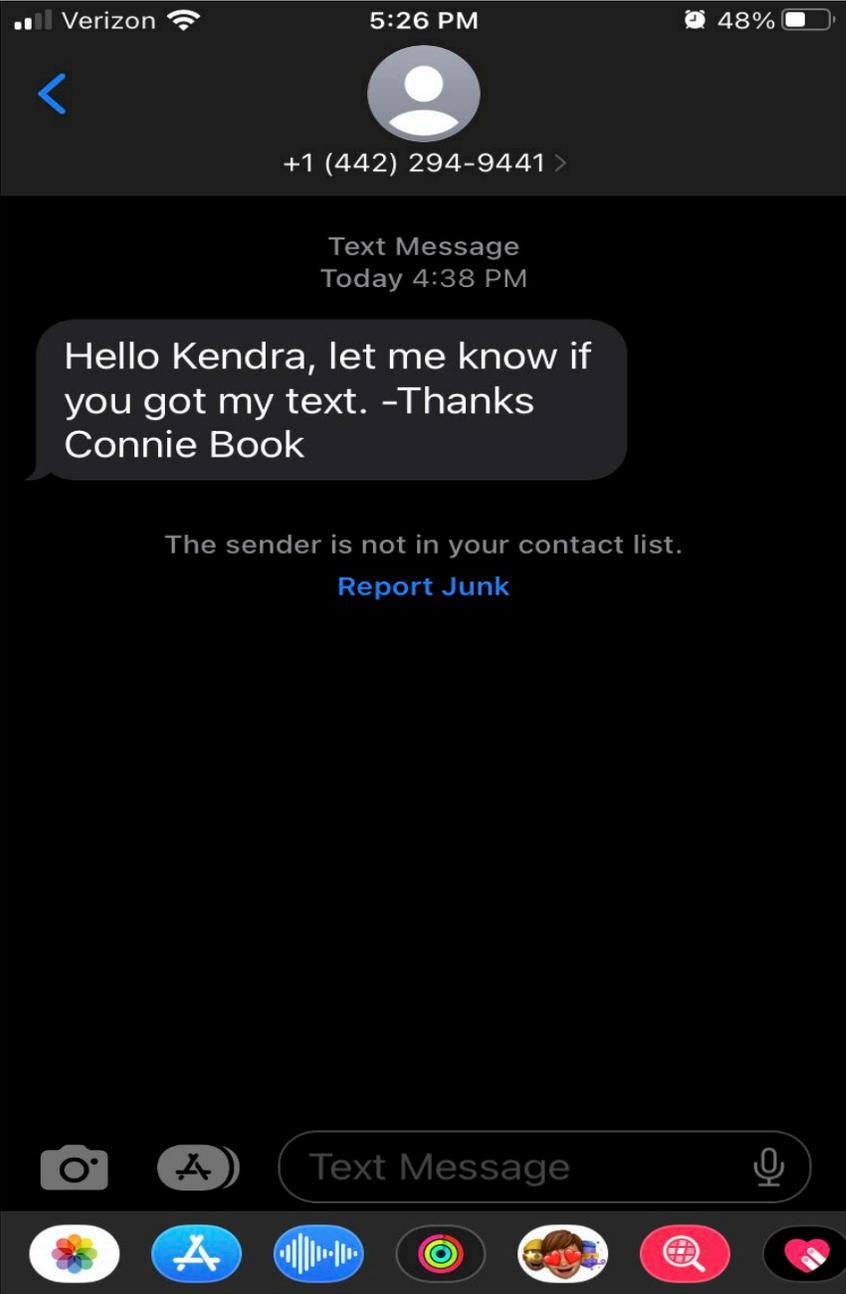




Tips For Ensuring Privacy & Security

#2 – Phishing / Spoofing / Scams

Phishing is not just for email anymore





Tips For Ensuring Privacy & Security

#3 – Transferring Data - COMPLIANCE

Everyone who handles, accesses, stores, transmits or processes regulated data or sensitive data has a responsibility to be aware of and comply with regulatory requirements.

REQUIREMENT	DATA TYPES (WRITTEN & DIGITAL)	RESPONSIBILITY
Gramm-Leach-Bliley Act (GLBA)	Student financial information and other non-public student information	Susan Kirkland
General Data Protection Regulation (GDPR)	Personally Identifiable Information for European Union citizens	Christopher Waters
Payment Card Industry Standard (PCI-DSS)	Credit card processing formation – electronic commerce	Gary Sheehan
Family Educational Rights and Privacy Act (FERPA)	Student non-public personal and academic information	Rodney Parks
Health Insurance Portability and Accountability Act (HIPAA)	Medical / health related information for all individuals	Jana Lynn Patterson
State Privacy Laws Personally Identifiable Information (PII)	Any representation of information that permits the identity of an individual to whom the information applies to be reasonably inferred by either direct or indirect means.	All Employees

Personal information, when misused or inadequately protected, can result in identity theft, financial fraud, regulatory non-compliance and other problems that collectively cost people, businesses and governments millions of dollars per year.



Tips For Ensuring Privacy & Security

#4 – Mobile Security (Elon-owned & Personal Devices)

- Always run updates – (auto update is best, OS & Apps)
- Enable strong user authentication – (Screen lock / Biometrics, etc.)
- Avoid public wi-fi – (increased exposure to malware and hackers)
- Cloud backups – (ensure your phone is being backed-up)
- Practice good application security & privacy
 - Beware of malicious apps
 - Delete unneeded apps
 - Grant least privilege for services
 - Review location settings (always-on vs. in-use only)



Tips For Ensuring Privacy & Security

#5 – Privacy

Many of the advances in technology that make our lives easier and more comfortable, also are the biggest threats to our personal privacy.

Social Media

Trackers AI

Smart Devices

Camera Technology

GPS

Facial Recognition

Analytics



Tips For Ensuring Privacy & Security

#5 – Privacy

“

*If you are not paying for it,
you're not the customer;
you're the product being sold.*

”

- Andrew Lewis (aka blue_beetle)





Tips For Ensuring Privacy & Security

#5 – Privacy

Privacy Configuration Settings on Mobile Include:

- Location settings / GPS
- Tracking (tracking application use activity)
- Access to your camera
- Access to your microphone
- Access to contacts & calendars
- Fitness / Activity tracking
- Access to your photos
- Access to files and folders
- Bluetooth access
- Access to reminders





Tips For Ensuring Privacy & Security

#5 – Privacy

Social Media is the Biggest Risk to Privacy

- No all apps are created equal
- Be cautious about what you post in Social Media
- Be careful when accepting “Friend” connections
- Search yourself on Google
- Consider posting your vacation photos & plans AFTER you get home
- Restrict who can see your friends list, contacts and photos
- Posting photos of job offers or college acceptance letters might reveal too much personal information

15 APPS TO WATCH OUT FOR

MeetMe  Where teens can easily be in contact with users much older than them, with an emphasis on dating.	Holla  This app is all about connecting strangers around the world through video chat. Enough said.	Hot or Not  This app rates users on attractiveness. There's no age verification and users can send each other messages.
Kik  This app is specifically for kids, but anyone can join and anyone can contact or direct message your child.	ASKfm  This app encourages people to allow anonymous users to ask them questions, which opens the door for online bullying.	SnapChat  This app is a messaging app but you can send unlimited messages, video chat, and see your and others locations.
Skout  Flirting app that's used to meet and chat with new people. Teens and adults are in different groups, but ages aren't verified.	Grindr  This app is geared towards the LGBTQ community. It allows users to share photos and meet up based on phone's GPS location.	Badoo  This app is a dating app for adults, but teens can still find ways to join.
TikTok  This app is used for sharing user created videos that can contain bad words, even adult content.	LiveMe  This app is a live streaming app, but you don't know who's watching and your kids location is revealed.	Calculator%  This app is one of several secret apps that allows kids to hide their photos, videos, even browser history.
WhatsApp  This app is for messaging, but what you should know is teens can send unlimited messages, have video chats and even share their live location with other users, people they may not even know.	Whisper  This app is a social confessional where kids can remain anonymous, but still share their feelings. And it can reveal your child's location for a meet up.	Bumble  This app is a dating app for adults, but teens can still find ways to join.

abc10
SOURCE: SARASOTA COUNTY SHERIFF'S OFFICE

Tips For Ensuring Privacy & Security

#6 – Realize Constant Change

- Technology is constantly changing requiring business to be agile and adaptive.
- Cybercriminals don't have rules,
- Private networks are quickly disappearing.
- Employees must understand and manage their own cybersecurity
- AI will likely accelerate the rate of change



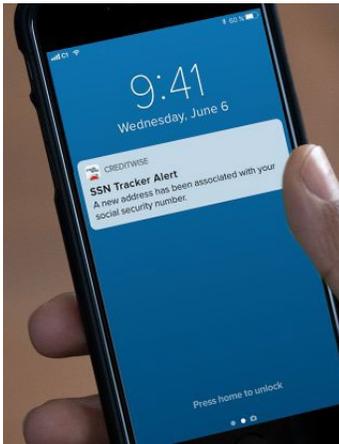


Tips For Ensuring Privacy & Security

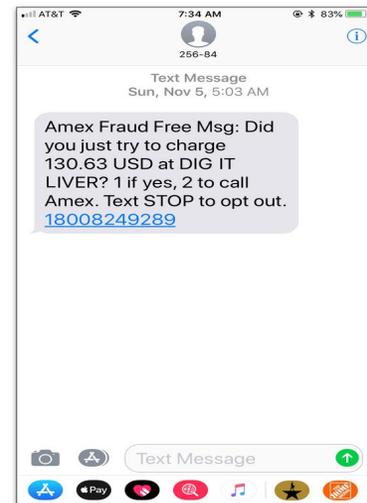
#7 – “Personal Information” Security & Privacy

- Account Protection / Device Protection
- Identity Protection Services
- Credit Card Purchase Protection
- Credit Card Fraud Protection
- Credit Monitoring

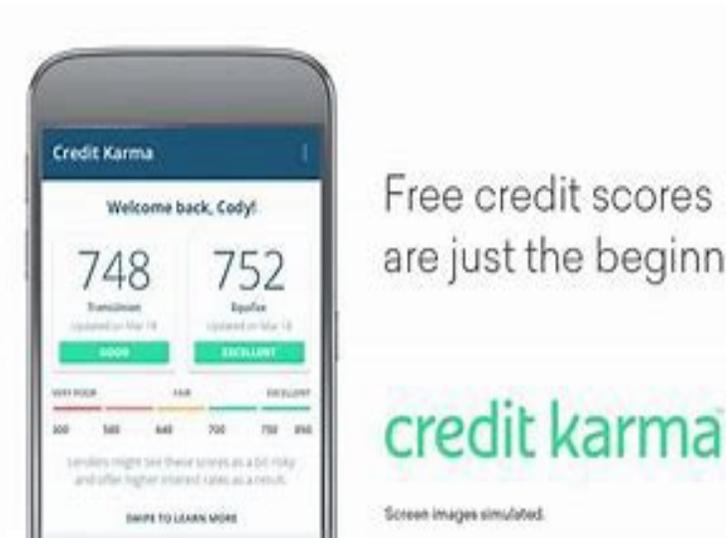
Purchase alerts are useful for tracking charges made to an associated credit card.



Fraud alerts are especially useful for stopping fraudulent charges in their tracks



IdentityProtectionReview.com



Free credit scores are just the beginning

credit karma

Screen images simulated.



Tips For Ensuring Privacy & Security

#7 – “Personal Information” Security & Privacy

What is LastPass...? ?

- Only remember one password
- Easily retrieve passwords, on any device, through your LastPass vault
- Create secure passwords through the LastPass password generation tool
- Mobile app
- Easily and securely share passwords with work a team
- Can be shared with family members

Summary

- Stay Informed - technology / vulnerabilities / threats / scams / risks
- Don't feed the phish or take the Bait
- Compliance is everyone's job – share with care
- Use mobile technology wisely
- Value your privacy at work and at home
- Recognize your risks when using social media
- Practice your “personal security”

**We all must do our part to Ensure
Cyber Safety and Data Privacy**





Q & A



Staying Informed

Phishing / Malware

Compliance

Mobil technology

Privacy

Social Media

Personal Security and Privacy